

401 KAR 39:090. Hazardous waste permit program.

RELATES TO: KRS 224.10, 224.46, 224.50-130, 224.99, 304.11-030, 40 C.F.R. 264, 265, 266, 267

STATUTORY AUTHORITY: KRS 224.46-520, 224.5-130

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.46-520 requires the Energy and Environment Cabinet to promulgate administrative regulations establishing standards for hazardous waste permitting and persons engaging in the storage, treatment, disposal, and recycling of hazardous waste, and to establish standards for these permits, to require adequate financial responsibility, to establish corrective action requirements, and to establish minimum standards for closure for all facilities and the post-closure monitoring and maintenance of hazardous waste disposal facilities. KRS 224.50-130 requires the Energy and Environment Cabinet to list additional compounds as hazardous wastes and to consider additional criteria in making a determination to issue, deny, or condition a permit for a hazardous waste site or facility for treatment, storage, or disposal of nerve agents. This administrative regulation establishes the standards for the hazardous waste permit program.

Section 1. Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities. Except as established in subsections (1) through (7) of this section and Sections 5 through 9 of this administrative regulation, standards for owners and operators of hazardous waste treatment, storage, and disposal facilities shall be as established in 40 C.F.R. Part 264, except 40 C.F.R. 264.1(f), 40 C.F.R. 264.1(g)(12), 40 C.F.R. 264.15(b)(5), 40 C.F.R. 264.149, 40 C.F.R. 264.150, 40 C.F.R. 264.301(l), 40 C.F.R. 264.1030(d), 40 C.F.R. 264.1050(g), and 40 C.F.R. 264.1080(e) through (g).

(1) The Maximum Concentration of Constituents for Groundwater Protection in 40 C.F.R. 264.94, Table 1 shall be replaced with Table 1 of this subsection.

Table 1: Maximum Concentration of Constituents for Groundwater Protection			
Maximum	Contaminant	Con-	Level
stituent			(mg/l)
	Antimony		0.006
	Arsenic		0.01
	Barium		2.0
	Benzene		0.005
	Benzo(a)pyrene		0.0002
	Beryllium		0.004
	Cadmium		0.005
	Carbon tetrachloride		0.005
	Chlordane		0.002
	Chromium		0.1
	Cyanide (as free Cyanide)		0.2
	Dibromochloropropane		0.0002
	1,2-Dichloroethane		0.005
	o-Dichlorobenzene		0.6
	p-Dichlorobenzene		0.075
	1,1-Dichloroethylene		0.007
	cis-1,2-Dichloroethylene		0.07
	trans-1,2-Dichloroethylene		0.1

Dichloromethane (Methylene chloride)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.07
1,2-Dichloropropane	0.005
Di(2-ethylhexyl)phthalate	0.006
Dinoseb	0.007
Endothall	0.1
Endrin	0.002
Ethylene dibromide (1,2-Dibromoethane)	0.00005
Fluoride	4.0
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lead	0.15
Lindane	0.0002
Mercury	0.002
Methoxychlor	0.04
Monochlorobenzene	0.1
Polychlorinated biphenyls	0.0005
Pentachlorophenol	0.001
Selenium	0.05
Tetrachloroethylene	0.005
Thallium	0.002
Toluene	1
Toxaphene	0.003
1,1,1-Trichloroethane	0.2
Trichloroethylene	0.005
1,2,4-Trichlorobenzene	0.07
1,1,2-Trichloroethane	0.005
2,4,5-TP Silvex	0.01
2,3,7,8-TCDD (Dioxin)	3.0 x 10 ⁻⁸
Vinyl chloride	0.002

(2) In addition to 40 C.F.R. 264.143(e)(1), 40 C.F.R. 264.145(e)(1), 40 C.F.R. 264.147(a)(1)(ii), and 40 C.F.R. 264.147(b)(1)(ii), each insurance policy providing primary coverage shall be issued by an insurer that is authorized to transact insurance in Kentucky, except if KRS 304.11-030 establishes otherwise.

(3) The reference in 40 C.F.R. 264.570 and 265.440(a) to "December 6, 1990", shall be replaced with "August 18, 1994", for drip pads where F034 or F035 wastes are handled.

(4) The reference in 40 C.F.R. 264.570 to "December 24, 1992", shall be replaced with "August 26, 1996", for drip pads where F034 or F035 wastes are handled.

(5) A tank system that stores or treats materials that become hazardous waste subsequent to March 10, 1988, shall conduct an assessment of any existing tank system's integrity within

twelve (12) months after the date the waste becomes a hazardous waste.

(6) In addition to the requirements in 40 C.F.R. 264.304, if the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall notify the cabinet pursuant to 401 KAR 39:060, Section 6(1).

(7) In addition to the requirements in 40 C.F.R. 264.226, 264.254, and 264.303, applicants shall demonstrate that the admixed liner shall be structurally sound and chemically resistant to the waste placed in it to ensure that the liner shall be capable of supporting the waste without cracking, disintegrating, or allowing waste or leachate to escape.

Section 2. Owners and Operators of Interim Status Hazardous Waste Treatment, Storage, and Disposal Facilities. (1) Except as established in subsections (2) through (4) of this section and Sections 5 through 9 of this administrative regulation, interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities shall be as established in 40 C.F.R. Part 265, except 40 C.F.R. 265.1(c)(4), 40 C.F.R. 265.1(c)(15), 40 C.F.R. 265.149, 40 C.F.R. 265.150, 40 C.F.R. 265.1030(c), 40 C.F.R. 265.1050(f), and 40 C.F.R. 265.1080(e) through (g).

(2) In addition to the requirements in 40 C.F.R. 265.303, if the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall notify the cabinet pursuant to 401 KAR 39:060, Section 6(1).

(3) In addition to 40 C.F.R. 265.143(d)(1), 40 C.F.R. 265.145(d)(1), 40 C.F.R. 265.147(a)(1)(ii), and 40 C.F.R. 265.147(b)(1)(ii), each insurance policy providing primary coverage shall be issued by an insurer who is authorized to transact insurance in Kentucky, except if KRS 304.11-030 establishes otherwise.

(4) As of January 12, 1991, a facility that failed to qualify for federal interim status for any waste code promulgated pursuant to HSWA or that lost interim status for failing to certify as required by HSWA for any newly promulgated waste code, shall also be denied interim status pursuant to this administrative regulation.

Section 3. Specific Hazardous Wastes and Facilities. Except as established in subsections (1) through (3) of this section and Sections 5 through 9 of this administrative regulation, standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities shall be as established in 40 C.F.R. Part 266.

(1) The Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain in 40 C.F.R. Part 266, Appendix I, Table I-D shall be replaced with Table I-D in this subsection.

Table I-D: Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain								
Terrain adjusted eff. stack ht. (m)	Values for use in urban areas				Values for use in rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	4.6E-02	1.1E-01	1.7E-02	8.2E-02	2.4E-02	5.8E-02	8.6E-03	4.3E-02
6	5.4E-02	1.3E-01	1.9E-02	9.4E-02	2.8E-02	6.6E-02	1.0E-02	5.0E-02
8	6.0E-02	1.4E-01	2.2E-02	1.1E-01	3.2E-02	7.6E-02	1.1E-02	5.6E-02
10	6.8E-02	1.6E-01	2.4E-02	1.2E-01	3.6E-02	8.6E-02	1.3E-02	6.4E-02
12	7.6E-02	1.8E-01	2.7E-02	1.4E-01	4.3E-02	1.1E-01	1.6E-02	7.8E-02

14	8.6E-02	2.1E-01	3.1E-02	1.5E-01	5.4E-02	1.3E-01	2.0E-02	9.6E-02
16	9.6E-02	2.3E-01	3.5E-02	1.7E-01	6.8E-02	1.6E-01	2.4E-02	1.2E-01
18	1.1E-01	2.6E-01	4.0E-02	2.0E-01	8.2E-02	2.0E-01	3.0E-02	1.5E-01
20	1.2E-01	3.0E-01	4.4E-02	2.2E-01	1.0E-01	2.5E-01	3.7E-02	1.9E-01
22	1.4E-01	3.4E-01	5.0E-02	2.5E-01	1.3E-01	3.2E-01	4.8E-02	2.4E-01
24	1.6E-01	3.9E-01	5.8E-02	2.8E-01	1.7E-01	4.0E-01	6.0E-02	3.0E-01
26	1.8E-01	4.3E-01	6.4E-02	3.2E-01	2.1E-01	5.0E-01	7.6E-02	3.9E-01
28	2.0E-01	4.8E-01	7.2E-02	3.6E-01	2.7E-01	6.4E-01	9.8E-02	5.0E-01
30	2.3E-01	5.4E-01	8.2E-02	4.0E-01	3.5E-01	8.2E-01	1.2E-01	6.2E-01
35	3.0E-01	6.8E-01	1.0E-01	5.4E-01	5.4E-01	1.3E+00	1.9E-01	9.6E-01
40	3.6E-01	9.0E-01	1.3E-01	6.8E-01	8.2E-01	2.0E+00	3.0E-01	1.5E+00
45	4.6E-01	1.1E+00	1.7E-01	8.6E-01	1.1E+00	2.8E+00	4.2E-01	2.1E+00
50	6.0E-01	1.4E+00	2.2E-01	1.1E+00	1.5E+00	3.7E+00	5.4E-01	2.8E+00
55	7.6E-01	1.8E+00	2.7E-01	1.4E+00	2.0E+00	5.0E+00	7.2E-01	3.6E+00
60	9.4E-01	2.2E+00	3.4E-01	1.7E+00	2.7E+00	6.4E+00	9.6E-01	4.8E+00
65	1.1E+00	2.8E+00	4.2E-01	2.1E+00	3.6E+00	8.6E+00	1.3E+00	6.4E+00
70	1.3E+00	3.1E+00	4.6E-01	2.4E+00	4.3E+00	1.0E+01	1.5E+00	7.6E+00
75	1.5E+00	3.6E+00	5.4E-01	2.7E+00	5.0E+00	1.2E+01	1.8E+00	9.0E+00
80	1.7E+00	4.0E+00	6.0E-01	3.0E+00	6.0E+00	1.4E+01	2.2E+00	1.1E+01
85	1.9E+00	4.6E+00	6.8E-01	3.4E+00	7.2E+00	1.7E+01	2.6E+00	1.3E+01
90	2.2E+00	5.0E+00	7.8E-01	3.9E+00	8.6E+00	2.0E+01	3.0E+00	1.5E+01
95	2.5E+00	5.8E+00	9.0E-01	4.4E+00	1.0E+01	2.4E+01	3.6E+00	1.8E+01
100	2.8E+00	6.8E+00	1.0E+00	5.0E+00	1.2E+01	2.9E+01	4.3E+00	2.2E+01
105	3.2E+00	7.6E+00	1.1E+00	5.6E+00	1.4E+01	3.4E+01	5.0E+00	2.6E+01
110	3.6E+00	8.6E+00	1.3E+00	6.4E+00	1.7E+01	4.0E+01	6.0E+00	3.0E+01
115	4.0E+00	9.6E+00	1.5E+00	7.2E+00	2.0E+01	4.8E+01	7.2E+00	3.6E+01
120	4.6E+00	1.1E+01	1.7E+00	8.2E+00	2.4E+01	5.8E+01	8.6E+00	4.3E+01

(2) The Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain, Values for use in Urban and Rural Areas in 40 C.F.R. Part 266, Appendix I, Table I-E shall be replaced with Table I-E in this subsection.

Table I-E: Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain, Values for use in Urban and Rural Areas

Terrain adjusted eff. stack ht. (m)	Values for use in urban and rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	1.1E-02	2.6E-02	4.0E-03	2.0E-02
6	1.6E-02	3.9E-02	5.8E-03	2.9E-02
8	2.4E-02	5.8E-02	8.6E-03	4.3E-02
10	3.5E-02	8.2E-02	1.3E-02	6.2E-02
12	4.3E-02	1.0E-01	1.5E-02	7.6E-02
14	5.0E-02	1.3E-01	1.9E-02	9.4E-02
16	6.0E-02	1.4E-01	2.2E-02	1.1E-01
18	6.8E-02	1.6E-01	2.4E-02	1.2E-01
20	7.6E-02	1.8E-01	2.7E-02	1.3E-01
22	8.2E-02	1.9E-01	3.0E-02	1.5E-01
24	9.0E-02	2.1E-01	3.3E-02	1.6E-01
26	1.0E-01	2.4E-01	3.6E-02	1.8E-01
28	1.1E-01	2.7E-01	4.0E-02	2.0E-01
30	1.2E-01	3.0E-01	4.4E-02	2.2E-01
35	1.5E-01	3.7E-01	5.4E-02	2.7E-01
40	1.9E-01	4.6E-01	6.8E-02	3.4E-01
45	2.4E-01	5.4E-01	8.4E-02	4.2E-01
50	2.9E-01	6.8E-01	1.0E-01	5.0E-01
55	3.5E-01	8.4E-01	1.3E-01	6.4E-01
60	4.3E-01	1.0E+00	1.5E-01	7.8E-01
65	5.4E-01	1.3E+00	1.9E-01	9.6E-01
70	6.0E-01	1.4E+00	2.2E-01	1.1E+00
75	6.8E-01	1.6E+00	2.4E-01	1.2E+00
80	7.6E-01	1.8E+00	2.7E-01	1.3E+00
85	8.2E-01	2.0E+00	3.0E-01	1.5E+00
90	9.4E-01	2.3E+00	3.4E-01	1.7E+00
95	1.0E+00	2.5E+00	4.0E-01	1.9E+00
100	1.2E+00	2.8E+00	4.3E-01	2.1E+00
105	1.3E+00	3.2E+00	4.8E-01	2.4E+00
110	1.5E+00	3.5E+00	5.4E-01	2.7E+00
115	1.7E+00	4.0E+00	6.0E-01	3.0E+00
120	1.9E+00	4.4E+00	6.4E-01	3.3E+00

(3) The Risk Specific Doses (10^{-5}) in 40 C.F.R. Part 266, Appendix V shall be replaced with Appendix V in this subsection.

Appendix V: Risk specific doses (10^{-6})			
Constituent	CAS No.	Unit risk (m3/ug)	RsD (ug/m3)
Acrylamide	79-06-1	1.3E-03	7.7E-04
Acrylonitrile	107-13-1	6.8E-05	1.5E-02
Aldrin	309-00-2	4.9E-03	2.0E-04
Aniline	62-53-3	7.4E-06	1.4E-01
Arsenic	7440-38-2	4.3E-03	2.3E-04
Benz(a)anthracene	56-55-3	8.9E-04	1.1E-03

Benzene	71-43-2	8.3E-06	1.2E-01
Benzidine	92-87-5	6.7E-02	1.5E-05
Benzo(a)pyrene	50-32-8	3.3E-03	3.0E-04
Beryllium	7440-41-7	2.4E-03	4.2E-04
Bis(2-chloroethyl)ether	111-44-4	3.3E-04	3.0E-03
Bis(chloromethyl)ether	542-88-1	6.2E-02	1.6E-05
Bis(2-ethylhexyl)-phthalate	117-81-7	2.4E-07	4.2E+00
1,3-Butadiene	106-99-0	2.8E-04	3.6E-03
Cadmium	7440-43-9	1.8E-03	5.6E-04
Carbon Tetrachloride	56-23-5	1.5E-05	6.7E-02
Chlordane	57-74-9	3.7E-04	2.7E-03
Chloroform	67-66-3	2.3E-05	4.3E-02
Chloromethane	74-87-3	3.6E-06	2.8E-01
Chromium VI	7440-47-3	1.2E-02	8.3E-05
DDT	50-29-3	9.7E-05	1.0E-02
Dibenz(a,h)anthracene	53-70-3	1.4E-02	7.1E-05
1,2-Dibromo-3-chloropropane	96-12-8	6.3E-03	1.6E-04
1,2-Dibromoethane	106-93-4	2.2E-04	4.5E-03
1,1-Dichloroethane	75-34-3	2.6E-05	3.8E-02
1,2-Dichloroethane	107-06-2	2.6E-05	3.8E-02
1,1-Dichloroethylene	75-35-4	5.0E-05	2.0E-02
1,3-Dichloropropene	542-75-6	3.5E-01	2.9E-06
Dieldrin	60-57-1	4.6E-03	2.2E-04
Diethylstilbestrol	56-53-1	1.4E-01	7.1E-06
Dimethylnitrosamine	62-75-9	1.4E-02	7.1E-05
2,4-Dinitrotoluene	121-14-2	8.8E-05	1.1E-02
1,2-Diphenylhydrazine	122-66-7	2.2E-04	4.5E-03
1,4-Dioxane	123-91-1	1.4E-06	7.1E-01
Epichlorohydrin	106-89-8	1.2E-06	8.3E-01
Ethylene Oxide	75-21-8	1.0E-04	1.0E-02
Ethylene Dibromide	106-93-4	2.2E-04	4.5E-03
Formaldehyde	50-00-0	1.3E-05	7.7E-02
Heptachlor	76-44-8	1.3E-03	7.7E-04
Heptachlor Epoxide	1024-57-3	2.6E-03	3.8E-04
Hexachlorobenzene	118-74-1	4.9E-04	2.0E-03
Hexachlorobutadiene	87-68-3	2.0E-05	5.0E-02
Alpha-hexachlorocyclo-hexane	319-84-6	1.8E-03	5.6E-04
Beta-hexachlorocyclo-hexane	319-85-7	5.3E-04	1.9E-03
Gamma-hexachlorocyclo-hexane	58-89-9	3.8E-04	2.6E-03
Hexachlorocyclohex-ane, Technical		5.1E-04	2.0E-03
Hexachlorodibenxo-p-dioxin(1,2 Mixture)		1.3E+0	7.7E-07
Hexachloroethane	67-72-1	4.0E-06	2.5E+01
Hydrazine	302-01-2	2.9E-03	3.4E-04
Hydrazine Sulfate	302-01-2	2.9E-03	3.4E-04
3-Methylcholanthrene	56-49-5	2.7E-03	3.7E-04
Methyl Hydrazine	60-34-4	3.1E-04	3.2E-03
Methylene Chloride	75-09-2	4.1E-06	2.4E-01

4,4'-Methylene-bis-2-chloroaniline	101-14-4	4.7E-05	2.1E-02
Nickel	7440-02-0	2.4E-04	4.2E-03
Nickel Refinery Dust	7440-02-0	2.4E-04	4.2E-03
Nickel Subsulfide	12035-72-2	4.8E-04	2.1E-03
2-Nitropropane	79-46-9	2.7E-02	3.7E-05
N-Nitroso-n-butylamine	924-16-3	1.6E-03	6.3E-04
N-Nitroso-n-methylurea	684-93-5	8.6E-02	1.2E-05
N-Nitrosodiethylamine	55-18-5	4.3E-02	2.3E-05
N-Nitrosopyrrolidine	930-55-2	6.1E-04	1.6E-03
Pentachloronitroben-zene	82-68-8	7.3E-05	1.4E-02
PCBs	1336-36-3	1.2E-03	8.3E-04
Pronamide	23950-58-5	4.6E-06	2.2E-01
Reserpine	50-55-5	3.0E-03	3.3E-04
2,3,7,8-Tetrachlorodi-benzo-p-dioxin	1746-01-6	4.5E+01	2.2E-08
1,1,2,2-Tetrachloro-ethane	79-34-5	5.8E-05	1.7E-02
Tetrachloroethylene	127-18-4	4.8E-07	2.1E+00
Thiourea	62-56-6	5.5E-04	1.8E-03
1,1,2-Trichloroethane	79-00-5	1.6E-05	6.3E-02
Trichloroethylene	79-01-6	1.3E-06	7.7E-01
2,4,6-Trichlorophenol	88-06-2	5.7E-06	1.8E-01
Toxaphene	8001-35-2	3.2E-04	3.1E-03
Vinyl Chloride	75-01-4	7.1E-06	1.4E-01

Section 4. Standardized Permits. Except as established in Sections 5 through 9 of this administrative regulation, the standards for owners and operators of hazardous waste facilities operating under a standardized permit shall be as established in 40 C.F.R. 267, except 40 C.F.R. 267.150.

Section 5. Flood Plains. (1) Except as established in subsection (3)(b) of this section, a facility located in a 100-year flood plain shall be designed, constructed, operated, maintained, and refitted if necessary, to prevent washout of any hazardous waste and to protect the facility from inundation by waters of the 100-year flood plain throughout the:

- (a) Active life of the facility;
 - (b) Closure phase of the facility; and
 - (c) For disposal facilities only, the post-closure phase.
- (2) Prevention of washout and protection from inundation shall be accomplished by:
- (a) Using a structure or device designed to:
 - 1. Provide adequate freeboard to prevent overtopping of the structure during a 100-year flood due to wind and wave action;
 - 2. Provide sufficient structural integrity to prevent massive failure due to the force and erosive tendencies of the 100-year floodwaters; and
 - 3. Accommodate other characteristics of the facility's location as necessary to accomplish the requirements of this subsection;
 - (b) Providing procedures that shall cause the waste to be removed safely, before floodwaters can reach the facility, to a location where the wastes shall not be vulnerable to floodwaters; or
 - (c) Demonstrating that alternate devices or measures, with the exception of covering the

waste, shall provide protection that meets the requirements of this subsection.

(3) The cabinet shall not issue a permit to construct a new hazardous waste:

(a) Site or facility in the floodway; or

(b) Disposal site or facility in the 100-year flood plain or a seasonal high-water table.

(4) A hazardous waste site or facility shall not restrict the flow of the 100-year flood or reduce the temporary water storage capacity of the 100-year flood plain so as to pose a hazard to human life, wildlife, or land or water resources.

(5) A facility that has closed and removed all hazardous waste, waste constituents, contaminated soil, debris, or other material contaminated with hazardous constituents, shall not be required to protect the closed portion of the facility from washout of waste or inundation by waters of the 100-year flood.

Section 6. Chemical Demilitarization. (1) In addition to the requirements in 40 C.F.R. Part 264, the cabinet shall consider the criteria established in subsection (2) of this section in making a determination to issue, deny, or condition a permit for any person applying for a permit to construct or operate a hazardous waste site or facility for treatment, storage, or disposal of any of the hazardous wastes listed in 401 KAR 39:060, Section 3(4).

(2) The permit applicant shall affirmatively demonstrate and the cabinet shall determine prior to issuance, conditional issuance, or denial of the permit that:

(a)1. The proposed treatment or destruction technology has been proven in an operational facility of scale, configuration, and throughput comparable to the proposed facility, for a period of time sufficient to provide assurance of 99.9999 percent destruction and removal efficiency of each substance proposed to be treated or destroyed as established in KRS 224.50-130(3)(a).

2. Destruction and removal efficiency (DRE) shall be determined for each waste from the following equation:

$$\text{DRE \%} = (\text{Win} - \text{Wout}) / \text{Win} \times 100\%$$

Where:

W_{in} = Mass feed rate of waste into the process.

W_{out} = Mass emission rate of the same waste out of the process;

(b)1. Monitoring data from a comparable facility shall reflect the absence of emissions from stack or fugitive sources, including the products of combustion and incomplete combustion, which alone or in combination present an adverse effect on human health or the environment in accordance with KRS 224.50-130(3)(b).

2. The cabinet shall determine from the monitoring data the absence of risk to human health and the environment prior to permit issuance;

(c) A plan has been developed and funded providing for sufficient training, coordination, and equipment for state and local emergency response consistent with the requirements established in KRS 224.50-130(c); and

(d) All workers within 1000 meters of the treatment unit shall be provided with an adequate level of protection against exposure to the nerve agents.

(3) In addition to the performance standards established in Section 1 of this administrative regulation, a facility treating the nerve and blister agents with hazardous waste codes N001, N002, or N003 established in 401 KAR 39:060, Section 3(4) shall be designed, constructed, and maintained to achieve a 99.9999 percent destruction and removal efficiency of each substance treated or destroyed.

(4)(a) An owner or operator that stores munitions or explosive hazardous wastes that contain the substances established in 401 KAR 39:060, Section 3(4), shall be subject to the requirements of 40 C.F.R. 264, Subpart EE.

(b) As referenced in 40 C.F.R. 266.202(a), military munitions shall not include any material

containing the substances established in 401 KAR 39:060, Section 3(4).

(c) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste in 401 KAR 39:060, Section 3(4), shall be subject to the applicable regulatory requirements of 401 KAR Chapter 39, including the storage prohibitions referenced in 40 C.F.R. 268.50 as established in 401 KAR 39:060, Section 4.

Section 7. Financial Assurance. (1)(a) An owner or operator may satisfy the financial assurance requirements of this administrative regulation by submitting to the cabinet by certified mail, a bond guaranteeing compliance with KRS Chapter 224 and administrative regulations promulgated pursuant thereto.

(b) The bond shall be supported by a cash account or certificate of deposit.

(c) The cash account or the certificate of deposit shall be held in escrow pursuant to an escrow agreement.

(d) An owner or operator of a new facility shall submit the bond to the cabinet at least sixty (60) days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(e) A cash account or certificate of deposit shall only be held by a bank or financial institution that is subject to and complies with all applicable state and federal financial regulations.

(2) In addition to the financial assurance wording of instruments referenced in 40 C.F.R. 264.143, 40 C.F.R. 264.145, 40 C.F.R. 264.147, 40 C.F.R. 264.151, 40 C.F.R. 265.143, 40 C.F.R. 265.145, 40 C.F.R. 265.147, 40 C.F.R. 267.143, 40 C.F.R. 267.147, and 40 C.F.R. 267.151, the owner or operator shall include the following information if using cash or certificate of deposit:

(a) Date that the signatory signed the document in front of the notary public;

(b) Signature, seal, and the date that the notary public's commission expires;

(c) Dollar amount being posted in escrow in words and in United States dollars;

(d) Certificate number, date of issuance, and principal dollar amount in United States dollars, of each certificate of deposit;

(e) Cash account number, date of opening, and principal dollar amount in United States dollars of each cash account maintained;

(f) Signature of the authorized representative of the escrow agent; and

(g) Signature of the Director of the Kentucky Division of Waste Management.

(3) The cabinet shall be the beneficiary of the Escrow Agreement to demonstrate closure, post-closure, or corrective action for the cash account or certificate of deposit.

(4) The cabinet shall be empowered to draw upon the funds if the owner or operator fails to perform closure, post-closure, or corrective action in accordance with the respective plan.

(5) The sum of the cash account or certificate of deposit shall be in an amount at least equal to the amount of the current closure, post-closure, or corrective action cost estimate, except as established in this subsection.

(6) After each interest period is completed, if the current closure, post-closure, or corrective action cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the cash accounts or the certificate of deposit.

(a) If the value of the cash accounts or certificate of deposit is less than the amount of the new estimate, the owner or operator, within sixty (60) days of the change in the cost estimate, shall:

1. Deposit an amount into the cash accounts or the certificate of deposit so that the value after this deposit at least equals the amount of the current closure, post-closure, or corrective action cost estimate; or

2. Obtain other financial assurance as established in 40 C.F.R. Parts 264 or 265 to cover the difference.

(b) If the value of the cash account or the certificate of deposit is greater than the total amount of the current closure, post-closure, or corrective action cost estimate, the owner or operator may submit a written request to the cabinet for release of the amount in excess of the current closure, post-closure, or corrective action cost estimate.

(7)(a) The terms of the escrow agreement for a cash account or certificate of deposit shall provide a provision for a notice of cancellation by certified mail to the owner or operator and to the cabinet prior to cancellation.

(b) The cancellation provision shall state that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the cabinet, as evidenced by return receipt.

(8) The owner or operator may cancel the cash account or certificate of deposit if the cabinet has given prior written consent. The cabinet shall provide a written consent if:

(a) An owner or operator substitutes alternate financial assurance as established in this administrative regulation; or

(b) The cabinet releases the owner or operator from the requirements of this administrative regulation in accordance with this administrative regulation.

(9)(a) An owner or operator or any other person authorized to perform closure, post-closure, or corrective action may request reimbursement for closure, post-closure, or corrective action expenditures by submitting itemized bills to the cabinet.

(b) Within sixty (60) days after receiving bills for closure, post-closure, or corrective action activities, the cabinet shall determine if the closure, post-closure, or corrective action expenditures are in accordance with the plan or approved, and if so, the cabinet may instruct the bank or financial institution to make reimbursements in those amounts as stated in writing if the cabinet determines that the expenditures are in accordance with the plan or approved.

(10) If a financial mechanism is used for multiple facilities, all matters arising in accordance with the financial mechanism related to the validity, interpretation, performance, and enforcement of the financial mechanism shall be determined in accordance with the law and practice of the Commonwealth of Kentucky.

(11) Except as established in 401 KAR Chapter 39 and KRS 224.46, a variance or other waiver of any financial requirements shall not be granted by the cabinet.

(12) Upon request by the cabinet, the insurer shall provide to the cabinet a duplicate original of the policy including all endorsements thereon.

(13)(a) Based on evidence that the owner or operator may no longer meet the financial test for any financial assurance posted, the cabinet shall require reports of financial condition from the owner or operator.

(b) If the cabinet determines, based on the reports of financial condition or other information, that the owner or operator no longer meets the financial test for any financial assurance posted, the owner or operator shall provide financial assurance using the appropriate instrument as established in this administrative regulation within thirty (30) days after notification of the cabinet's determination.

(14) In addition to 40 C.F.R. 264.151 requiring an owner or operator to notify several Regional Administrators of their financial obligations, the owner or operator shall notify both the cabinet and all Regional Administrators of Regions that are affected by the owner or operator's financial assurance mechanisms.

Section 8. Releases from Solid Waste Management Units. The owner or operator of a facility, any person seeking a permit, or any person closing a facility for the treatment, storage, or

disposal of hazardous waste, shall institute corrective action as established in this section, necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in the unit.

(1) A facility assessment shall be conducted consistent with the substantive requirements established in 401 KAR 100:030, Sections 6(1) and (2).

(2) A fee for the facility assessment shall be required as established in KRS 224.46-016(3).

(3)(a) Corrective action shall be established in the permit or other enforceable document in accordance with this administrative regulation.

(b) The permit or other enforceable document shall contain:

1. A schedule of compliance for the corrective action, if corrective action will not be completed prior to issuance of the permit or closure of the facility; and

2. An assurance of financial responsibility for completing the corrective action.

(4)(a) A required facility investigation shall be conducted consistent with the requirements established in 401 KAR 100:030, Section 6(3) through (8), Section 7(2)(a)1 and 2, and Section 7(2)(b) and (c).

(b) A fee for the facility investigation shall be required as established in KRS 224.46-016(4) and 224.46-018(5)(a).

(5)(a) A required plan or report for corrective action shall be conducted consistent with the substantive requirements established in 401 KAR 100:030, Section 8(1) and (3) and Section 9(1) and (2).

(b) A fee for corrective action shall be required as established in KRS 224.46-016(4) and 224.46-018(5)(b).

(6) The owner or operator shall implement corrective actions beyond the facility property boundary, if necessary to protect human health and the environment, unless the owner or operator demonstrates to the cabinet that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain permission to implement corrective actions beyond the facility property boundary.

(a) The owner or operator shall not be relieved of all responsibility to clean up a release that has migrated beyond the facility property boundary if off-site access is denied.

(b) On-site measures to address releases beyond the facility property boundary shall be determined in accordance with 401 KAR Chapter 39.

(c) An assurance of financial responsibility for corrective action for releases beyond the facility property boundary shall be provided.

(7) This section shall not apply to a remediation waste management site unless the site is part of a facility subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

(8) The schedule for closure of each hazardous waste management unit and for final closure of the facility required to be included in the closure plan established in subsection (5) of this section, shall also comply with the requirements in KRS 224.46-520(8).

Section 9. Exceptions and Additions. (1)(a) In the event of a release or threatened release of a pollutant or contaminant to the environment the facility shall comply with the requirements of 401 KAR 39:060, Section 6(1).

(b) If the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired in accordance with KRS 224.1-400.

(c) The reference to "EPA notification procedures" referenced in 40 C.F.R. Parts 264 to 267 shall be replaced with the notification procedures established in paragraph (a) of this subsection.

(2) Any reports, notifications, information, or documents required to be submitted to EPA, shall also be submitted to the cabinet at the same time.

(3) In addition to RCRA, Section 3008, KRS 224.10-420 through 224.10-470, 224.46-530, and 224.99-010 shall apply.

(4) In addition to RCRA, Section 3004(o)(1) KRS 224.46-530(1)(h) and (i), Sections 1 and 2 of this administrative regulation shall apply.

(5) The citation to RCRA, Section 3004(k) shall be replaced with KRS 224.1-010(43).

(6) In addition to the requirements in RCRA, Section 3005, KRS 224.46-520, KRS 224.46-530, 401 KAR 39:060, and this administrative regulation shall apply.

(7) In addition to RCRA, Section 7003, KRS 224.10-410 shall apply.

(8) In addition to RCRA, Section 3005(j)(1), Sections 1 and 2 of this administrative regulation shall apply.

(9) In addition to RCRA, Sections 3004(o)(2) and (3), Section 1 of this administrative regulation shall apply.

(10) In addition to RCRA, Sections 3005(j)(2), (3), (4), and (13), Section 2 of this administrative regulation shall apply.

(11) The requirements in RCRA, Section 3010(a) shall be replaced with the requirements established in 401 KAR 39:080, Section 1(2).

(12) In addition to RCRA, Section 3019, KAR 39:060, and KRS 224.46-520(1) shall apply.

(13) In addition to RCRA, Section 3004(d), KRS 224.46-520(2) shall apply.

(14) Any decision to shorten the post-closure period or the post-closure monitoring and maintenance of a permitted facility shall be made in accordance with KRS 224.46-520(4).

(15) Waste, used oil, or material contaminated with dioxins or hazardous wastes shall not be used as a dust suppressant.

(16) In addition to the import notifications referenced in 40 C.F.R. 264.12(a) and 40 C.F.R. 265.12(a) being submitted to the U.S. EPA, a copy shall be submitted to the cabinet at the same time.

(17) In addition to the requirements in 40 C.F.R. Part 264 and 40 C.F.R. Part 265, owners and operators of hazardous waste treatment, storage, and disposal facilities and owners and operators of interim status hazardous waste treatment, storage, and disposal facilities shall prepare a Hazardous Waste Annual Report for the cabinet annually as established in 401 KAR 39:080, Section 1(8)(a).

(18) The citations to the Clean Water Act, Sections 301, 307, and 402 in 40 C.F.R. Part 264 and 40 C.F.R. Part 265, shall also include any applicable Kentucky requirements as established in 401 KAR Chapter 5.

(19) The citations to 40 C.F.R. Part 60 and 40 C.F.R. Part 61, shall also include 401 KAR 60:005 and 401 KAR 57:002, respectively.

(20) The citation to 40 C.F.R. 63, Subpart EEE shall also include 401 KAR 63:002, Section 2(4)(rr).

(21) The citation to 40 C.F.R. 124.15 in 40 C.F.R. 264.1030(c), 40 C.F.R. 264.1050(c), 40 C.F.R. 264.1080(c), 40 C.F.R. 265.1080(c) shall be replaced with 40 C.F.R. 124.5.

(22) The citations to 40 C.F.R. Part 144 in 40 C.F.R. Parts 264, 265, and 267 shall be replaced with 805 KAR 1:110.

(23) If multiple facilities are covered by the same financial assurance mechanism as referenced in 40 C.F.R. 264.143(h), 40 C.F.R. 264.145(h), 40 C.F.R. 264.147(a)(1)(i), 40 C.F.R. 264.147(b)(1)(i), 40 C.F.R. 265.143(g), 40 C.F.R. 265.147(a)(1)(i), 40 C.F.R. 265.147(b)(1)(i), and 40 C.F.R. 265.145(g), evidence of financial assurance shall be submitted to the cabinet and, as appropriate, to the Regional Administrator and other state directors.

(24) The citations to the Safe Drinking Water Act shall also include any applicable Kentucky

requirements as established in 401 KAR Chapters 6, 8, 9, and 10, and 805 KAR Chapter 1. (14 Ky.R. 1559; eff. 3-10-1988; Am. 15 Ky.R. 375; 1035; 1264; eff. 10-26-1988; 16 Ky.R. 629; 1201; eff. 1-9-1990; TAm 6-27-2016; 44 Ky.R. 308, 966, 1250; eff. 12-7-2017.)